(b) whether it is also a fact that families of such teachers are badly affected due to such transfers; and

(c) if so, the steps Government propose to take to simplify the rules pertaining to transfers?

THE MINISTER OF STATE IN THE MINISTRY OF HUMAN RESOURCE DEVELOPMENT [DR. (SHRIMATI) RITA VERMA]: (a) to (c) Transfer of teachers on promotion is made with reference to their place of posting and not with reference to their home town. Transfer is an exigency of service. Howeve, in order to minimize the inconvenience on account of transfer, the guidelines envisage that lady teachers, on their promotion, are posted within the same region and male teachers are given placement in the neighbouring region on their promotion subjects to availability of vacancies.

Gold from sea water

5476. SHRI KARNENDU BHATTACHARJEE:
SHRI P. PRABHAKAR REDDY:

Will the Minister of OCEAN DEVELOPMENT be pleased to state:

(a) whether it is a fact that as per a study conducted recently, it is possible to extract gold out of sea water;

(b) if so, the details thereof; and

(c) whether any feasibility study of the project including its financial viability has been carried out and if so, the details thereof?

THE MINISTER OF OCEAN DEVELOPMENT (DR. MURLI MANOHAR JOSHI): (a) to (c) Yes, Sir. It is possible to extract gold from the sea water under laboratory conditions. Recently, a claim has been made by a scientist about the development to technology for extraction of gold from sea water. However, as the sea water contains only very low concentration of gold, the economic viability of extraction of gold from sea water is doubtful.

Medicines from seas

5477. SHRIMATI S.G. INDIRA: Will the Minister of OCEAN DEVELOPMENT be pleased to state:

(a) whether any research has been conducted to study to potential of obtaining medicines from seas;

(b) if so, the details thereof;

(c) whether any step has been taken to promote and market those medicines;

(d) if so, the details thereof; and

(e) if not, the reasons therefor?

THE MINISTER OF OCEAN DEVELOPMENT (DR. MURLI MANOHAR JOSHI): (a) and (b) Yes, Sir. A National Project on "Drugs from Sea" aiming to study the potential of marine organisms for extracting bioactive substances which can be used to develop drugs was initiated in 1991. More than 4000 samples from 1400 marine flora and fauna were collected and evaluated for their biological activity. Several of these samples were found to exhibit mild to strong therapeutic activities like antidiabetic, antidiarrhoels, antihyperlipidaemic, etc. from various fractions derived therefrom. The extracts from few organisms yielded the following promosing leades:

— Antidiabetic

— Antidiarrhoeal

— Antihyperlipidaemic

Rodent and monkey toxicity have been completed on the first two preparations and were found safe and ordent toxicity of the third preparation has been started in July 2001. A drug is developed after completion of pre-clinical trials, which takes about 8-12 years time.

(c) and (d) Commercialisation and industrial marketing is done after development is completed.

(e) Does not arise.

Rail projects in Iraq

5478. SHRI RUMANDLA RAMACHANDRAIAH: Will the Minister of RAILWAYS be pleased to state:

(a) whether Railways have signed a memorandum of understanding with the Iraq Government for 14 Rail Projects worth Rs. 1100 crore;